In the Claims

1.   (Currently Amended) A high-stiffness high-strength thin steel sheet comprising C: 0.02 - 0.15%, Si: not more than 1.5%, Mn: 1.5-4.0%, P: not more than 0.05%, S: not more than 0.01%, Al: not more than 1.5%, N: not more than 0.01%, B: 0.0005 – 0.0030% and Nb: 0.02-0.40% as mass%, provided that C, N and Nb contents satisfy the relationships of the following equations (1) and (2):

$$0.01 \le C+(12/14) \times N-(12/92.9) \times Nb \le 0.06 \qquad (1)$$

$$N \le (14/92.9) \times (Nb-0.01) \qquad (2)$$

and the remainder being substantially iron and inevitable impurities, and having a texture comprising a ferrite phase as a main phase and having a martensite phase at an area ratio of not less than 1%, and having a tensile strength of not less than 590 MPa and a Young's modulus of not less than 225 GPa.

2.   (Original) A high-stiffness high-strength thin steel sheet according to claim 1, which further contains one or two of Ti: 0.01 - 0.50% and V: 0.01 - 0.50% as mass% in addition to the above composition and satisfy the relationships of the following equations (3) and (4) instead of the equations (1) and (2):

$$0.01 \le C+(12/14) \times N^*-(12/92.9)$$
$$\times Nb-(12/47.9) \times Ti^*-(12/50.9) \times V \le 0.06 \qquad (3)$$

$$N^* \le (14/92.9) \times (Nb-0.01) \qquad (4)$$

provided that N^* in the equations (3) and (4) is $N^* = N-(14/47.9) \times Ti$ at $N-(14/47.9) \times Ti > 0$ and $N^* = 0$ at $N-(14/47.9) \times Ti \le 0$, and Ti^* in the equation (3) is $Ti^* = Ti-(47.9/14) \times N-(47.9/32.1) \times S$ at $Ti-(47.9/14) \times N-(47.9/32.1) \times S > 0$ and $Ti^* = 0$ at $Ti-(47.9/14) \times N-(47.9/32.1) \times S \le 0$.

3.   (Currently Amended) A high-stiffness high-strength thin steel sheet according to claim 1 or 2, which further contains one or more of Cr: 0.1 - 1.0%, Ni: 0.1 - 1.0%, Mo: 0.1 - 1.0%[[,]] and Cu: 0.1 - 2.0% and B: 0.0005 - 0.0030% as mass% in addition to the above composition.

4.   (Currently Amended) A method for producing a high-stiffness high-strength thin steel sheet comprising subjecting a starting material of steel comprising C: 0.02 - 0.15%, Si: not more than 1.5%, Mn: 1.5-4.0%, P: not more than 0.05%, S: not more than 0.01%, Al: not more than 1.5%, N: not more than 0.01%, B: 0.0005 – 0.0030% and Nb: 0.02-0.40% as mass%, provided that C, N and Nb contents satisfy the relationships of the following equations (1) and (2):

$$0.01 \leq C+(12/14)\times N-(12/92.9)\times Nb \leq 0.06 \qquad (1)$$

$$N \leq (14/92.9)\times(Nb-0.01) \qquad (2)$$

to a hot rolling step under conditions that a total rolling reduction below 950°C is not less than 30% and a finish rolling is terminated at Ar_3-900°C, coiling the hot rolled sheet below 650°C, pickling, subjecting to a cold rolling at a rolling reduction of not less than 50%, raising a temperature to 780 - 900°C at a temperature rising rate from 500°C of 1 - 40°C/s to conduct soaking, and then cooling at a cooling rate up to 500°C of not less than 5°C/s to conduct annealing.

5.   (Original) A method for producing a high-stiffness high-strength thin steel sheet according to claim 4, wherein the starting material of steel further contains one or two of Ti: 0.01 - 0.50% and V: 0.01 - 0.50% as mass% in addition to the above composition and satisfies the relationships of the following equations (3) and (4) instead of the equations (1) and (2):

$$0.01 \leq C+(12/14)\times N*-(12/92.9)$$

$$\times Nb-(12/47.9)\times Ti^*-(12/50.9)\times V \leq 0.06 \qquad (3)$$

$$N^* \leq (14/92.9)\times(Nb-0.01) \qquad (4)$$

provided that N^* in the equations (3) and (4) is $N^* = N-(14/47.9)\times Ti$ at $N-(14/47.9)\times Ti > 0$ and

$N^* = 0$ at $N-(14/47.9)\times Ti \leq 0$, and Ti^* in the equation (3) is $Ti^* = Ti-(47.9/14)\times N-(47.9/32.1)\times S$

at $Ti-(47.9/14)\times N-(47.9/32.1)\times S > 0$ and $Ti^* = 0$ at $Ti-(47.9/14)\times N-(47.9/32.1)\times S \leq 0$.

6.　　(Currently Amended) A method for producing a high-stiffness high-strength thin steel sheet according to claim 4 or 5, wherein the staring material of steel further contains one or more of Cr: 0.1 - 1.0%, Ni: 0.1 - 1.0%, Mo: 0.1 - 1.0%[[,]] and Cu: 0.1 - 2.0% and B: 0.0005 0.0030% as mass% in addition to the above composition.

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